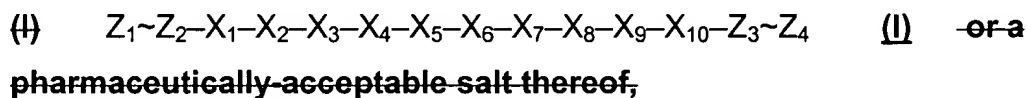


## AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claim 1 (currently amended): An isolated compound which inhibits pilus assembly, or a pharmaceutically-acceptable salt thereof, said compound comprising a mimic of a chaperone G1 beta-strand or a mimic of an amino terminal motif of a pilus subunit, wherein the mimic is a 10 to 20 residue peptide, having an amino terminus and a carboxy terminus, according to formula (I):



wherein:

$Z_1$  is the amino terminus of the mimic peptide,  $Z_1$  having the formula  
R-C(O)-NR- or RRN-;

$Z_2$  is (i) a first peptide sequence consisting of 1 to 5 amino acid residues or (ii) a bond connecting  $Z_1$  to  $X_1$ ;

$X_1$  is any amino acid residue;

$X_2$  is any amino acid residue;

$X_3$  is a hydrophobic residue or a hydroxyl-substituted aliphatic residue;

$X_4$  is any amino acid residue;

$X_5$  is a hydrophobic residue or Gly;

$X_6$  is a hydrophobic or a hydrophilic residue;

$X_7$  is Gly, an amide-substituted polar residue or a hydrophobic residue;

$X_8$  is an amino acid residue other than an aliphatic residue;

$X_9$  is an aliphatic residue;

$X_{10}$  is any amino acid residue;

$Z_3$  is (i) a second peptide sequence consisting of 1 to 5 amino acid residues or  
(ii) a bond connecting  $Z_4$  to  $X_{10}$ ;

$Z_4$  is the carboxy terminus of the peptide,  $Z_4$  having the formula  $-C(O)OR$  or  $-C(O)NRR$ ;

each R is independently hydrogen,  $(C_1-C_6)$  alkyl,  $(C_2-C_6)$  alkenyl,  $(C_2-C_6)$  alkynyl or  $(C_6-C_{14})$  aryl;

each "-" between residues  $X_1$  through  $X_{10}$ ,  $Z_2$  and  $X_1$  and  $X_{10}$  and  $Z_3$  independently represents an amide linkage, a substituted amide linkage or an isostere of an amide linkage; and

each "~" represents a bond.

Claim 2-3 (cancelled)

Claim 4 (previously presented): The compound of claim 1 wherein the compound exhibits antibacterial activity against a Gram-negative bacterium.

Claim 5 (currently amended): An isolated compound which inhibits pilus assembly, said compound comprising SEQ ID NO: 1, wherein the compound is a mimic of a chaperone  $G_1$  beta-strand and the compound exhibits antibacterial activity against a Gram-negative bacterium. ~~The compound of claim 4 wherein said mimic comprises SEQ ID NO: 1 or an analog thereof.~~

Claim 6 (cancelled)

Claim 7 (cancelled)

Claim 8 (previously presented): The compound of claim 1 wherein the compound comprises a mimic of an amino terminal motif of a pilus subunit selected from the group consisting of SEQ ID NO: 2, SEQ ID NO: 3, SEQ ID NO: 4, SEQ ID NO: 5, SEQ ID NO: 6, SEQ ID NO: 7, SEQ ID NO: 8, SEQ ID NO: 9, SEQ ID NO: 10, SEQ ID NO: 11, SEQ ID NO: 13, SEQ ID NO: 14, SEQ ID NO: 15, SEQ ID NO: 16, SEQ ID NO: 17, SEQ ID NO: 18, SEQ ID NO: 19, SEQ ID NO: 20, SEQ ID NO: 21, SEQ ID NO:

22, SEQ ID NO: 23, SEQ ID NO: 24, SEQ ID NO: 25, SEQ ID NO: 26, SEQ ID NO: 27, SEQ ID NO: 28 and SEQ ID NO: 29.

Claim 9 (currently amended): The compound of claim 8 wherein said mimic of an amino-terminal motif of a pilus subunit further comprises the amino acid sequence SDVAFRGNLL (SEQ ID NO: 12) ~~or an analog thereof~~.

Claim 10 (cancelled)

Claim 11 (cancelled)

Claim 12 (cancelled)

Claim 13 (previously presented): The compound of claim 1 wherein one or more of the following conditions are satisfied:

each "-" between residues  $X_1$  through  $X_{10}$ ,  $Z_2$  and  $X_1$  and  $X_{10}$  and  $Z_3$  is an amide linkage;

$Z_1$  is  $H_2N-$ ;

$Z_4$  is  $-C(O)OH$  or a salt thereof;

$Z_2$  is a bond connecting  $Z_1$  to  $X_1$ ;

$Z_3$  is a bond connecting  $Z_4$  to  $X_{10}$ ;

$X_1$  is an amino acid residue other than a basic residue;

$X_2$  is an amino acid residue other than an aliphatic residue;

$X_3$  is an aliphatic residue or T;

$X_4$  is an amino acid residue other than an acidic residue;

$X_5$  is an aliphatic residue, F or G;

$X_7$  is G, N or A; or

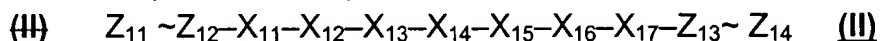
$X_{10}$  is an aliphatic or a polar residue.

Claim 14 (previously presented): The compound of claim 13 wherein the mimic comprises a sequence selected from the group consisting of SEQ ID NO: 2, SEQ ID

NO: 3, SEQ ID NO: 4, SEQ ID NO: 5, SEQ ID NO: 6, SEQ ID NO: 7, SEQ ID NO: 8, SEQ ID NO: 9, SEQ ID NO: 10, SEQ ID NO: 11, SEQ ID NO: 13, SEQ ID NO: 14, SEQ ID NO: 15, SEQ ID NO: 16, SEQ ID NO: 17, SEQ ID NO: 18, SEQ ID NO: 19, SEQ ID NO: 20, SEQ ID NO: 21, SEQ ID NO: 22, SEQ ID NO: 23, SEQ ID NO: 24, SEQ ID NO: 25, SEQ ID NO: 26, SEQ ID NO: 27, SEQ ID NO: 28 and SEQ ID NO: 29.

Claim 15 (cancelled)

Claim 16 (currently amended): An isolated compound which inhibits pilus assembly, or a pharmaceutically-acceptable salt thereof, the compound comprising a mimic of a chaperone G<sub>1</sub> beta-strand or a mimic of an amino terminal motif of a pilus subunit, wherein the mimic is a 7 to 17 residue peptide ~~or peptide analog~~, having an amino terminus and a carboxy terminus, according to formula (II):



~~or a pharmaceutically-acceptable salt thereof,~~

wherein:

Z<sub>11</sub> is the amino terminus of the peptide, Z<sub>11</sub> having the formula R'-C(O)-NR'- or R'R'N-;

Z<sub>12</sub> is (i) a first peptide sequence consisting of 1 to 5 amino acid residues or (ii) a bond connecting Z<sub>11</sub> to X<sub>11</sub>;

X<sub>11</sub> is any amino acid residue;

X<sub>12</sub> is any amino acid residue;

X<sub>13</sub> is a hydrophobic residue;

X<sub>14</sub> is any amino acid residue;

X<sub>15</sub> is a hydrophobic residue;

X<sub>16</sub> is any amino acid residue;

X<sub>17</sub> is hydrophobic residue or a hydroxyl-substituted aliphatic residue;

Z<sub>13</sub> is (i) a second peptide sequence consisting of 1 to 5 amino acid residues or (ii) a bond connecting Z<sub>14</sub> to X<sub>17</sub>;

Z<sub>14</sub> is the carboxy terminus of the peptide, Z<sub>14</sub> having the formula -C(O)OR' or -C(O)NR'R';

each R' is independently hydrogen, (C<sub>1</sub>-C<sub>6</sub>) alkyl, (C<sub>2</sub>-C<sub>6</sub>) alkenyl, (C<sub>2</sub>-C<sub>6</sub>) alkynyl or (C<sub>6</sub>-C<sub>14</sub>) aryl;

each "-" between residues X<sub>11</sub> through X<sub>17</sub>, Z<sub>12</sub> and X<sub>11</sub> and X<sub>17</sub> and Z<sub>13</sub> independently represents an amide linkage, a substituted amide linkage or an isostere of an amide linkage; and

each "~" independently represents a bond.

Claim 17 (previously presented): The compound of claim 16 wherein one or more of the following conditions are satisfied:

each "-" between residues X<sub>11</sub> through X<sub>17</sub>, Z<sub>12</sub> and X<sub>11</sub> and X<sub>17</sub> and Z<sub>13</sub> is an amide linkage;

Z<sub>11</sub> is H<sub>2</sub>N-;

Z<sub>14</sub> is -C(O)OH or a salt thereof;

Z<sub>12</sub> is a bond connecting Z<sub>11</sub> to X<sub>11</sub>;

Z<sub>13</sub> is a bond connecting Z<sub>14</sub> to X<sub>17</sub>;

X<sub>11</sub> is an amino acid residue other than a basic residue;

X<sub>13</sub> is an aliphatic residue or M;

X<sub>14</sub> is an amino acid residue other than an aromatic residue;

X<sub>15</sub> is an aliphatic residue, F or M; and

X<sub>17</sub> is an aliphatic residue, F, M or a hydroxyl-substituted aliphatic residue.

Claim 18 (cancelled)

Claim 19 (currently amended): The compound of any one of claims 1, 2, 5, 8, 9, 13, 14, 16, or 17 wherein said compound exhibits antibacterial activity against one or more Gram-negative bacterium selected from the group consisting of *E. coli*, *H. influenzae*, *S. euteriditis*, *S. typhimurium*, *B. pertussis*, *Y. pestis*, *Y. enterocolitica*, *H. pylori* and *K. pneumoniae*.

Claims 20-135 (cancelled)

Claim 136 (previously presented): An isolated compound which inhibits pilus assembly, the compound consisting of SEQ ID NO: 12.

Claim 137 (previously presented): An isolated compound which inhibits pilus assembly, the compound consisting essentially of SEQ ID NO: 12, wherein the compound is a mimic of an amino terminal motif of a pilus subunit.

Claim 138 (previously presented): An isolated compound which inhibits pilus assembly, the compound comprising a mimic of an amino terminal motif of a pilus subunit, wherein the mimic comprises SEQ ID NO:12.

Claim 139 (previously presented): The compound of claim 138 wherein the compound competitively binds to a pilus subunit hydrophobic groove.

Claim 140-158 (cancelled)

Claim 159 (**new**) The compound of claim 1 wherein the compound consists essentially of a 10 to 20 residue peptide according to formula (I).

Claim 160 (**new**) The compound of claim 16 wherein the compound consists essentially of a 7 to 17 residue peptide according to formula (II).